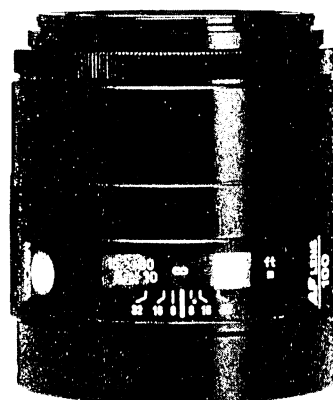


MINOLTA AF 100mm F2 (2598-100)
MINOLTA MAXXUM AF 100mm F2 (2598-600)

LENS



Construction	: 7 elements in 6 groups
Type	: Gauss
Coating	: Minolta Achromatic
Angle of view	: 24°
Lens mount	: Minolta A mount
Lens signal contact	: 5 contacts
Diaphragm	: Automatic preset diaphragm
F No.	: Maximum 2 Minimum 32 Full-stop setting 8 stops
Diaphragm blade	: 9 blades

DIMENSIONS & WEIGHT

Dimensions : $\phi 67$ (max. diameter) \times
75.5mm (max. length)
Weight : 480 g
Filter-thread diameter : $\phi 55$ mm (P=0.75)
Lens hood : Exclusive (Bayonet type)

FOCUSING

Focusing : AF, FA, M
Type : Floating system
Minimum focusing distance : 1.0m
Distance scale : $\frac{3.5 \quad 4 \quad 5}{1 \quad 1.2 \quad 1.5}$
Infrared correction scale : Yes
Depth-of-field scale : 8 · 16 · 22

ACCESSORIES

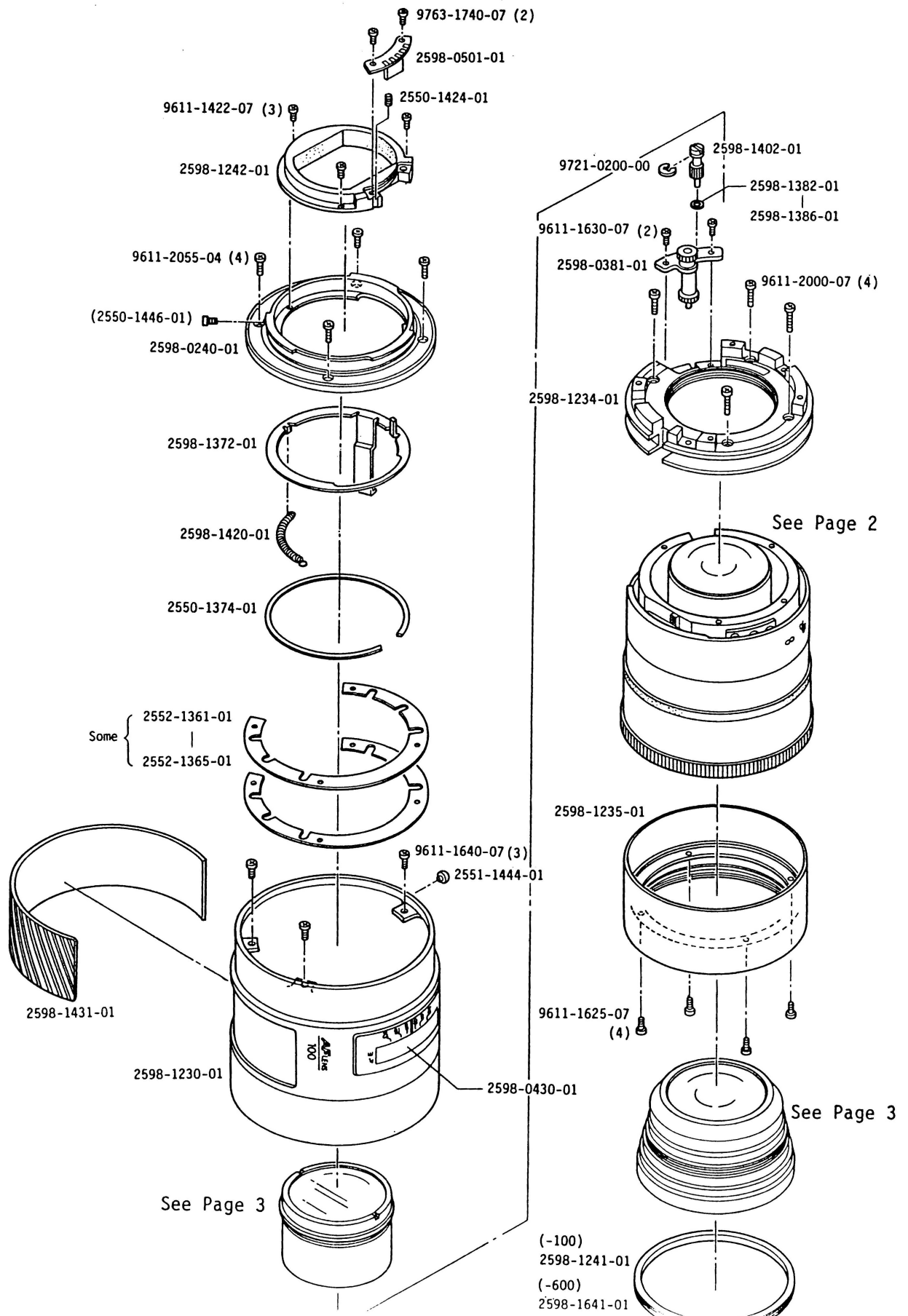
Lens case (LH-1033)
 Lens hood (6598-810)

I n d e x

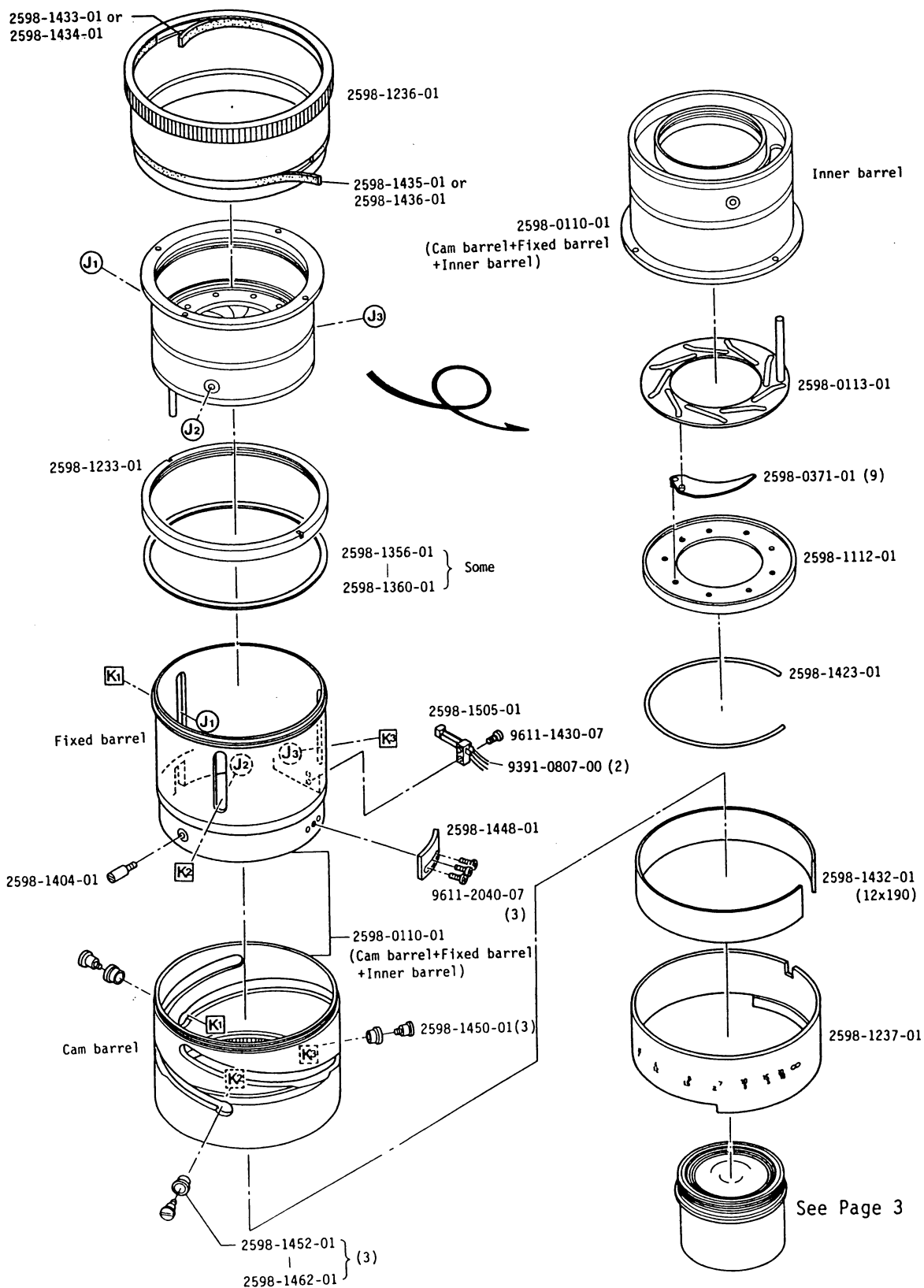
No 2598

Part No.	Page	Part No.	Page	Part No.	Page
2598-0103.....	3	2552-1361.....	1	2598-1452.....	2
2598-0110.....	2	2552-1362.....	1	2598-1453.....	2
2598-0113.....	2	2552-1363.....	1	2598-1455.....	2
2598-0240.....	1	2552-1364.....	1	2598-1456.....	2
2598-0371.....	2	2552-1365.....	1	2598-1458.....	2
2598-0381.....	1	2598-1372.....	1	2598-1459.....	2
2598-0430.....	1	2550-1374.....	1	2598-1460.....	2
2598-0501.....	1	2598-1382.....	1	2598-1461.....	2
2598-0810.....	3	2598-1383.....	1	2598-1462.....	2
		2598-1384.....	1		
2598-1101.....	3	2598-1385.....	1	2598-1505.....	2
2598-1102.....	3	2598-1386.....	1	2598-1641.....	1
2598-1104.....	3	2598-1402.....	1		
2598-1105.....	3	2598-1404.....	2	2598-1801.....	3
2598-1106.....	3	2598-1420.....	1	2598-1802.....	3
2598-1107.....	3	2598-1422.....	3	2598-1803.....	3
2598-1112.....	2	2598-1423.....	2	2598-1807.....	3
		2550-1424.....	1		
2598-1230.....	1	2598-1431.....	1	9391-0807-00.....	2
2598-1233.....	2	2598-1432.....	2		
2598-1234.....	1	2598-1433.....	2	9611-1422-07.....	1
2598-1235.....	1	2598-1434.....	2	9611-1430-07.....	2
2598-1236.....	2	2598-1435.....	2	9611-1625-07.....	1
2598-1237.....	2	2598-1436.....	2	9611-1630-07.....	1
2598-1241.....	1	2551-1444.....	1	9611-1640-07.....	1
2598-1242.....	1	2550-1446.....	1	9611-2000-07.....	1
		2598-1448.....	2	9611-2040-07.....	2
2598-1356.....	2	2598-1450.....	2	9611-2055-04.....	1
2598-1357.....	2				
2598-1358.....	2			9721-0200-00.....	1
2598-1359.....	2			9763-1740-07.....	1
2598-1360.....	2				

AF 100mm F2(32) Code No.2598-100
 MAXXUM AF 100mm F2(32) Code No.2598-600



Part No	Part Name		Qty.
2598-0240-01	Bayonet mount set	バヨネットマウントセット	1
(2550-1446-01)	Screw	ストッパービス	1
2598-0381-01	Gear set	ギヤーセット	1
2598-0430-01	Distance scale window set	距離表示窓セット	1
2598-0501-01	Lens contact board set	信号基板セット	1
2598-1230-01	Outer ring	固定保持環	1
2598-1234-01	Base plate	外筒	1
2598-1235-01	Front ring	鏡頭環	1
2598-1241-01	Name ring(-100)	飾り環	1
2598-1242-01	Light shield ring	遮光筒	1
2552-1361-01	Back washer-A (t=0.05)	バックワッシャー	} Some
2552-1362-01	Back washer-B (t=0.07)	バックワッシャー	
2552-1363-01	Back washer-C (t=0.1)	バックワッシャー	
2552-1364-01	Back washer-D (t=0.2)	バックワッシャー	
2552-1365-01	Back washer-E (t=0.5)	バックワッシャー	
2598-1372-01	Preset ring	プリセットリング	1
2550-1374-01	Preset ring pressure	プリセットリング押え	1
2598-1382-01	Adjustment washer (t=0.05)	カプラー調整ワッシャー	} Some
2598-1383-01	Adjustment washer (t=0.07)	カプラー調整ワッシャー	
2598-1384-01	Adjustment washer (t=0.1)	カプラー調整ワッシャー	
2598-1385-01	Adjustment washer (t=0.2)	カプラー調整ワッシャー	
2598-1386-01	Adjustment washer (t=0.5)	カプラー調整ワッシャー	
2598-1402-01	Coupler	カプラー	1
2598-1420-01	Main spring	メインスプリング	1
2550-1424-01	Spring	アーススプリング	1
2598-1431-01	Leather	貼皮	1
2551-1444-01	Bayonet point	バヨネット標点	1
2598-1641-01	Name ring(-600)	飾り環	1
9611-1422-07	Phillips type screw	十字穴付なべ小ねじ	3
9611-1625-07	Phillips type screw	十字穴付なべ小ねじ	4
9611-1630-07	Phillips type screw	十字穴付なべ小ねじ	2
9611-1640-07	Phillips type screw	十字穴付なべ小ねじ	3
9611-2000-07	Phillips type screw	十字穴付なべ小ねじ	4
9611-2055-04	Phillips type screw	十字穴付なべ小ねじ	4
9721-0200-00	E-ring	E リング	1
9763-1740-07	Tap tite screw	十字穴付タップタイト小ねじ	2



Part No	Part Name		Qty.
2598-0110-01	Cam barrel set	カム環セット	1
2598-0113-01	Diaphragm operation plate set	絞り操作板セット	1
2598-0371-01	Diaphragm blade set	絞り羽根セット	9
2598-1112-01	Diaphragm pressure eing	絞り押え板	1
2598-1233-01	Cam barrel pressure ring	カム環押え	1
2598-1236-01	Focusing ring	距離リング	1
2598-1237-01	Distance scale ring	距離目盛環	1
2598-1356-01	Cam barrel washer(t=0.02)	カム環調整ワッシャー	} Some
2598-1357-01	Cam barrel washer(t=0.03)	カム環調整ワッシャー	
2598-1358-01	Cam barrel washer(t=0.04)	カム環調整ワッシャー	
2598-1359-01	Cam barrel washer(t=0.05)	カム環調整ワッシャー	
2598-1360-01	Cam barrel washer(t=0.06)	カム環調整ワッシャー	
2598-1404-01	Stopper	近距離ストッパー	1
2598-1423-01	Pressure spring	絞り押え環SP	1
2598-1432-01	Tape	テープ	1
2598-1433-01	Friction plate(t=1.0)	摩擦布A	} 1
2598-1434-01	Friction plate(t=0.9)	摩擦布B	
2598-1435-01	Friction plate(t=1.0)	摩擦布C	} 1
2598-1436-01	Friction plate(t=0.9)	摩擦布D	
2598-1448-01	Focusing stopper	フォーカスストッパー	1
2598-1450-01	Guide pin	案内ピン	3
2598-1452-01	Guide roller(D ₁ =5.03, D ₂ =4.52)	案内ローラー	} 3
2598-1453-01	Guide roller(D ₁ =5.03, D ₂ =4.51)	案内ローラー	
2598-1455-01	Guide roller(D ₁ =5.02, D ₂ =4.52)	案内ローラー	
2598-1456-01	Guide roller(D ₁ =5.02, D ₂ =4.51)	案内ローラー	
2598-1458-01	Guide roller(D ₁ =5.01, D ₂ =4.52)	案内ローラー	
2598-1459-01	Guide roller(D ₁ =5.01, D ₂ =4.51)	案内ローラー	
2598-1460-01	Guide roller(D ₁ =5.03, D ₂ =4.50)	案内ローラー	
2598-1461-01	Guide roller(D ₁ =5.02, D ₂ =4.50)	案内ローラー	
2598-1462-01	Guide roller(D ₁ =5.01, D ₂ =4.50)	案内ローラー	
2598-1505-01	Distance switch	距離スイッチ	1
9331-0807-00	Lead wire(Black, 0.08/7, ℓ=70)	リード線	2
9611-1430-07	Phillips type screw	十字穴付なべ小ねじ	1
9611-2040-07	Phillips type screw	十字穴付なべ小ねじ	3

■ When repairing following parts, must be checked resolving power by projection.

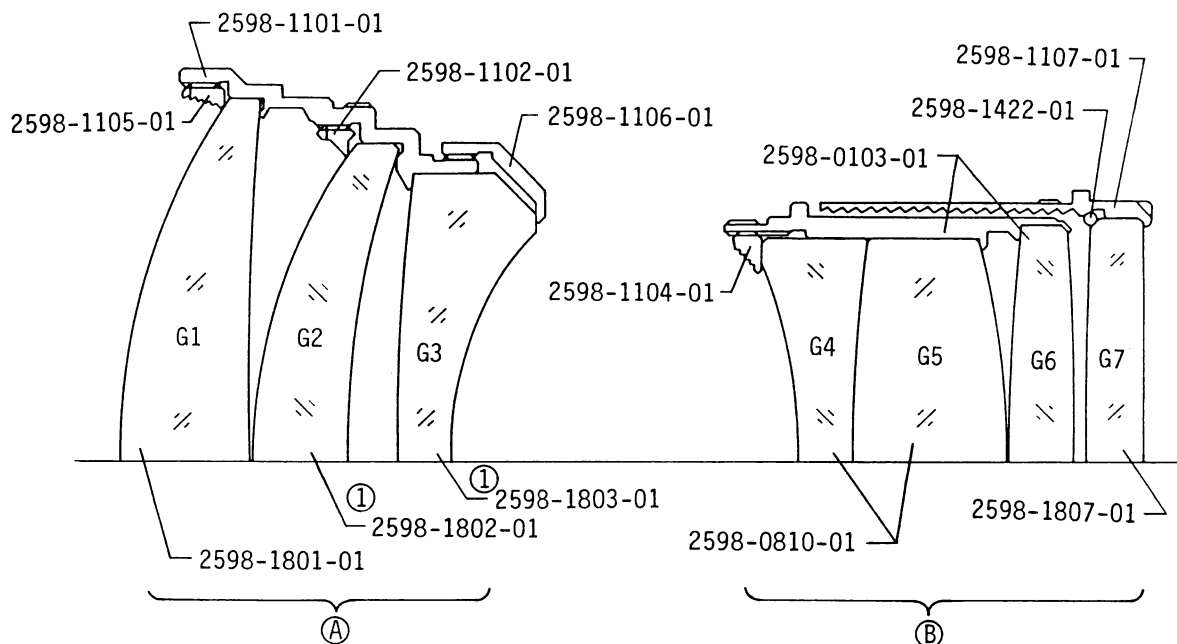
■ 下記部品を修理した場合は、必ず投影解像力を確認して下さい。

①: The influential lens element in the lens performance. (Number shows in order.)

①: レンズ性能によく影響するレンズ。(数字は順位を示す)

Ⓐ: The influential lens group in the lens performance. (Influence: In alphabetical order)

Ⓐ: レンズ性能によく影響するレンズ群。(影響度：アルファベット順)



Part No	Part Name	Qty.
2598-0103-01	Rear lens barrel set	1
2598-0810-01	G4, G5 set	1
2598-1101-01	Front lens barrel	1
2598-1102-01	G2 pressure ring	1
2598-1104-01	G4 pressure ring	1
2598-1105-01	G1 pressure ring	1
2598-1106-01	G3 pressure ring	1
2598-1107-01	G7 barrel	1
2598-1422-01	Pressure spring	1
2598-1801-01	Lens G1	1
2598-1802-01	Lens G2	1
2598-1803-01	Lens G3	1
2598-1807-01	Lens G7	1

REPAIR GUIDE

- The contents of this manual are in accordance with the assembling procedure. Therefore, follow the reverse procedure when disassembling.

—Description of marks used—

- **B** : Adhesive
- **S** : Solvent
- **A** : Anti-diffusion agent
- **G** : Grease
- : Point of assembling and general caution

■ Assembly and adjustment procedure

① Inner barrel, Fixed barrel, Cam barrel, Diaphragm blade set	p. 1
■ Infinity stop position adjusting	p. 2
② Distance scale ring, Focusing ring, Distance switch, Rear lens group	p. 3
③ Base plate, G7 lens set, Outer ring, Bayonet mount set, Lens contact board set	p. 4
■ Aperture diameter adjusting, aperture diameter pre-checking	p. 4
④ Front lens group, Name ring, Front ring	p. 5
■ Flange back (f'F) adjusting	p. 5
■ Projection resolving power checking	p. 5
■ Aperture diameter checking	p. 5
■ General function checking	p. 5
■ Flange back (f'F) adjusting procedure	p. 6
■ Description of focusing	p. 7
■ Schematic circuit diagram, Printed wiring diagram	p. 8

■ Precautions

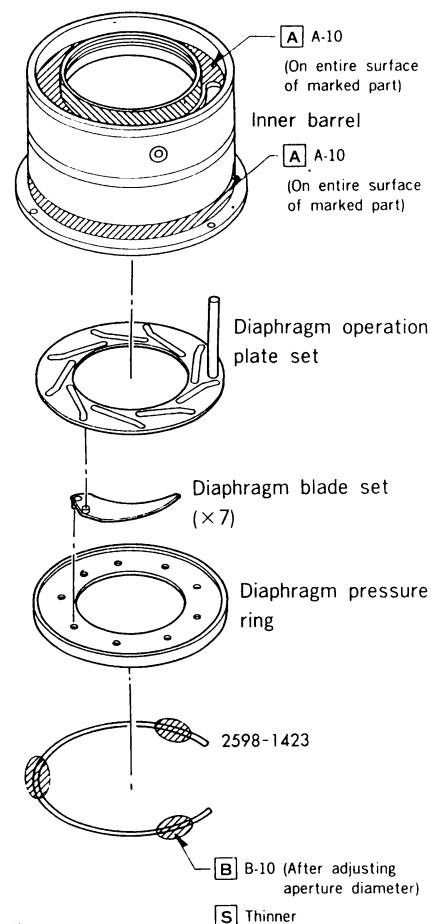
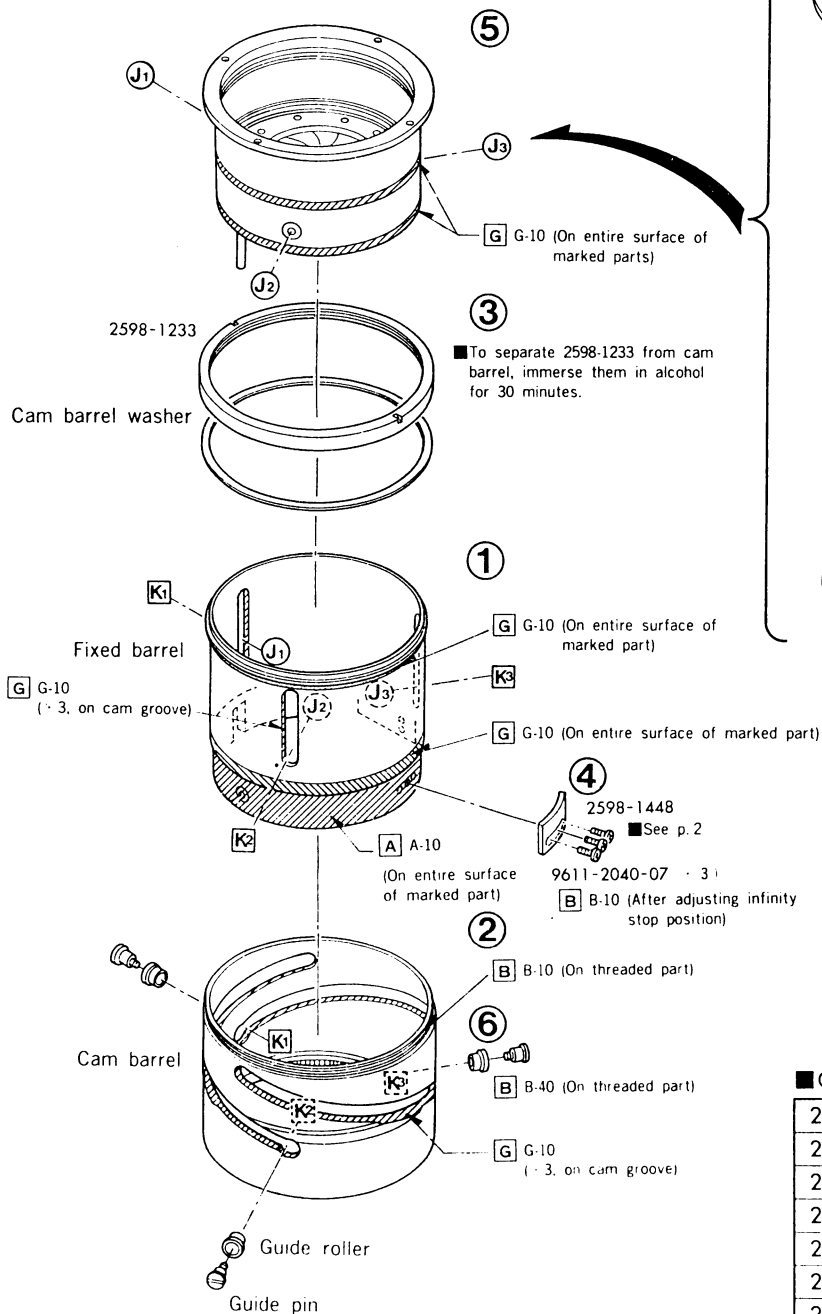
- Since this lens uses many resin parts, keep the following in mind when assembling and adjusting.
 - Use Fronsolve or alcohol when cleaning.
 - Never use thinner, ketone or ether.
- Since this lens uses MOS-IC, it is necessary to take special precautions about static electricity.
- When performing repair, use the conductive mat as shown.



1 Inner barrel, Fixed barrel, Cam barrel, Diaphragm blade set

■ Assemble the parts in order of ①-⑥.

■ After assembling, adjust "infinity stop position", referring to p. 2.



■ Cam barrel washer

2598-1356-01	t = 0.02
2598-1357-01	t = 0.03
2598-1358-01	t = 0.04
2598-1359-01	t = 0.05
2598-1360-01	t = 0.06

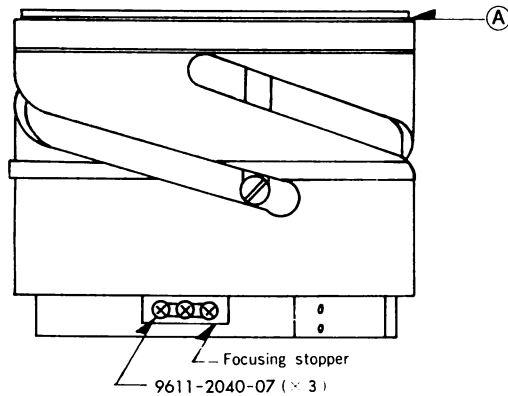
■ Guide roller

2598-1452-01	D ₁ = 5.03, D ₂ = 4.52
2598-1453-01	D ₁ = 5.03, D ₂ = 4.51
2598-1455-01	D ₁ = 5.02, D ₂ = 4.52
2598-1456-01	D ₁ = 5.02, D ₂ = 4.51
2598-1458-01	D ₁ = 5.01, D ₂ = 4.52
2598-1459-01	D ₁ = 5.01, D ₂ = 4.51
2598-1460-01	D ₁ = 5.03, D ₂ = 4.50
2598-1461-01	D ₁ = 5.02, D ₂ = 4.50
2598-1462-01	D ₁ = 5.01, D ₂ = 4.50

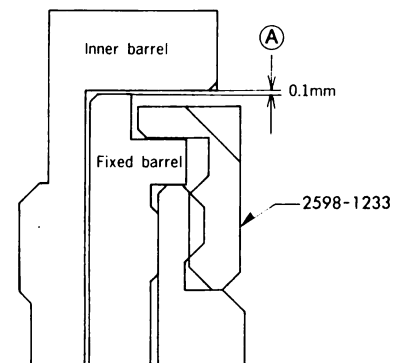
■ Infinity stop position adjusting

1. Loosen temporary screws ($\times 3$, 9611-2040-07) to free focusing stopper (2598-1448). Fig. 1
2. Hold inner barrel and fixed barrel, keeping the clearance "A" 0.1mm*.
※ Use back washer (0.1mm thick) for convenience. Fig. 2

■ Fig. 1

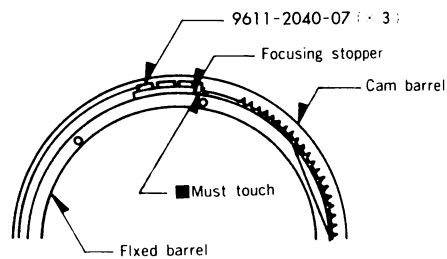


■ Fig. 2



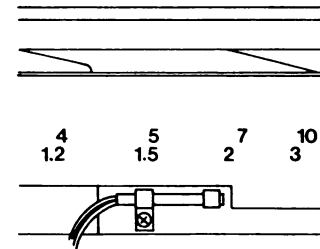
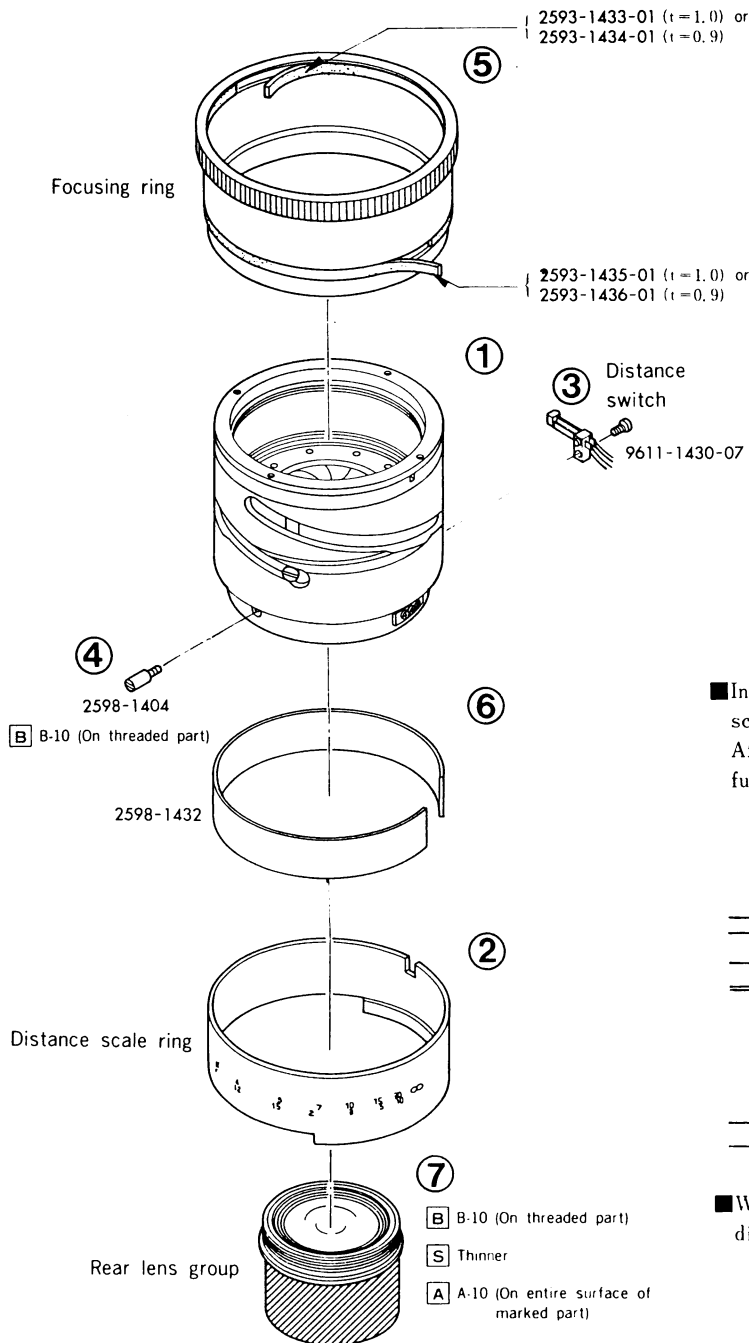
3. Touch focusing stopper (2598-1448) and cam barrel, then tighten the screws ($\times 3$, 9611-2040-07). Fig. 3
4. Make sure that the clearance "A" is 0.1mm.
Be careful not to mistake the clearance "A" for that between inner barrel and 2598-1233.

■ Fig. 3

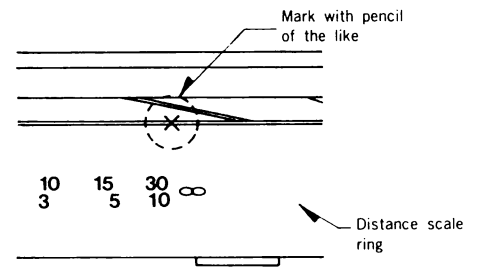


2 Distance scale ring, Focusing ring, Distance switch, Rear lens group

■ Assemble the parts in order of ①-⑦.



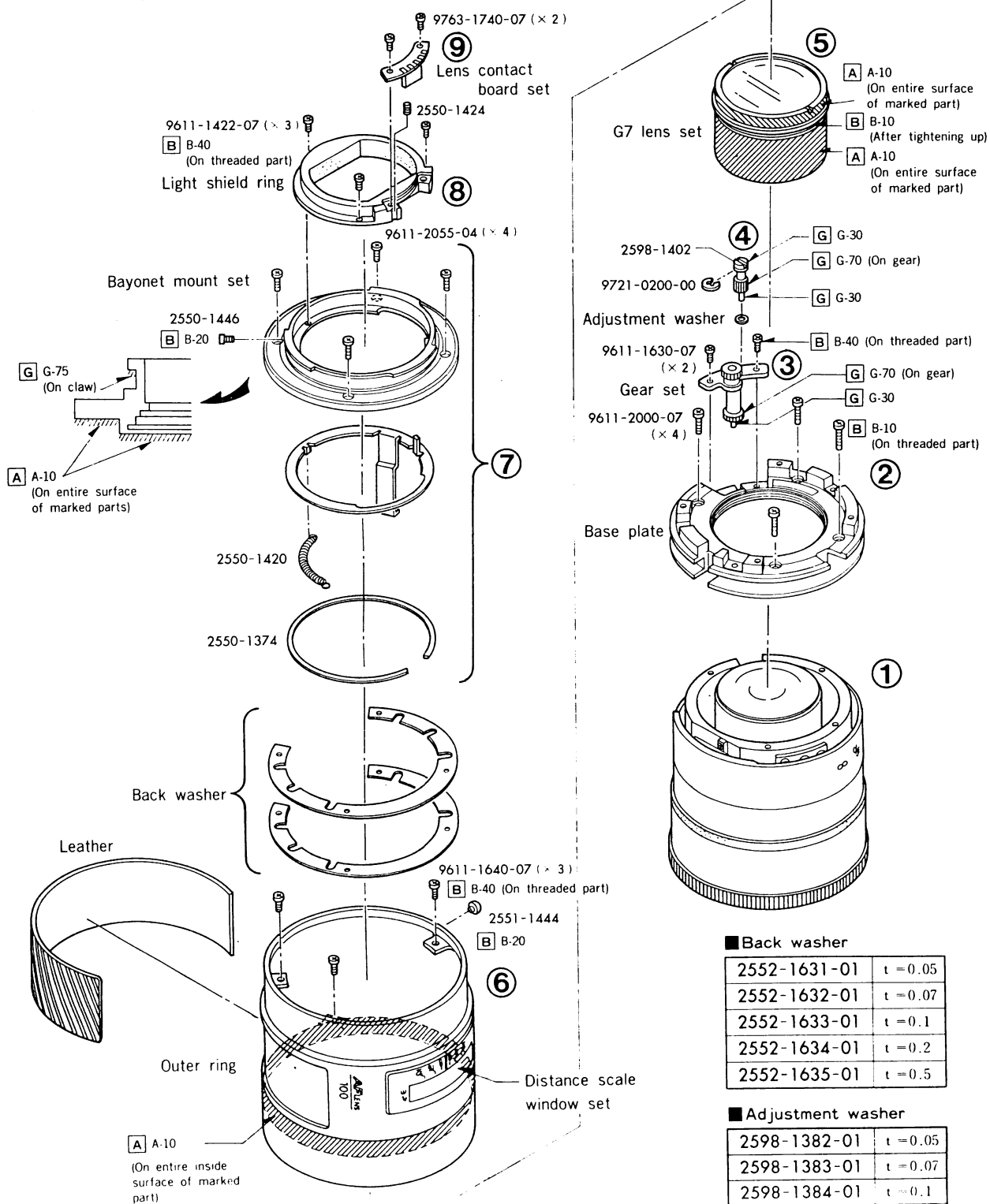
■ Install distance switch, setting distance scale ring as shown above. After installing, check the switch for functioning.



■ When removing the tape, mark on distance scale ring for positioning.

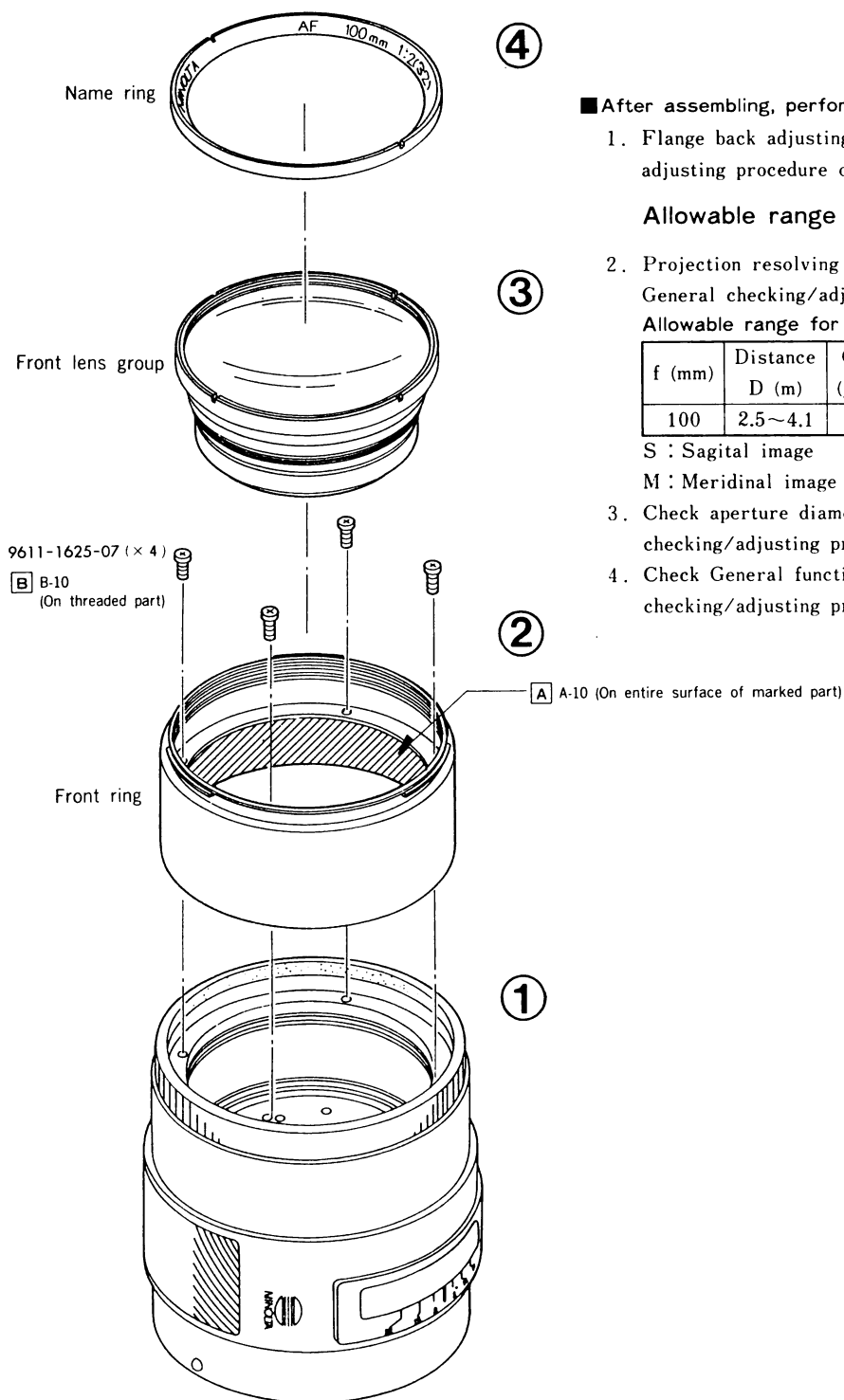
3 Base plate, G7 lens set, Outer ring, Bayonet mount set, Lens contact board set

- Assemble the parts in order of ①-⑨.
- After assembling, check/adjust aperture diameter.
(See General checking/adjusting procedure p. 8-9.)



4 Front lens group, Name ring, Front ring

■ Assemble the parts in order of ①-④.



■ After assembling, perform the following adjusting.

1. Flange back adjusting (referring to Flange back adjusting procedure on p. 6).

$$\text{Allowable range } f'F = 44.56^{+0.03}_0$$

2. Projection resolving power checking (referring to General checking/adjusting procedure on p. 6).

Allowable range for Servicing (min.)

f (mm)	Distance D (m)	Center (y' = 0)	y' = 15	
			S	M
100	2.5~4.1	100	50	40

S : Sagital image

M : Meridinal image

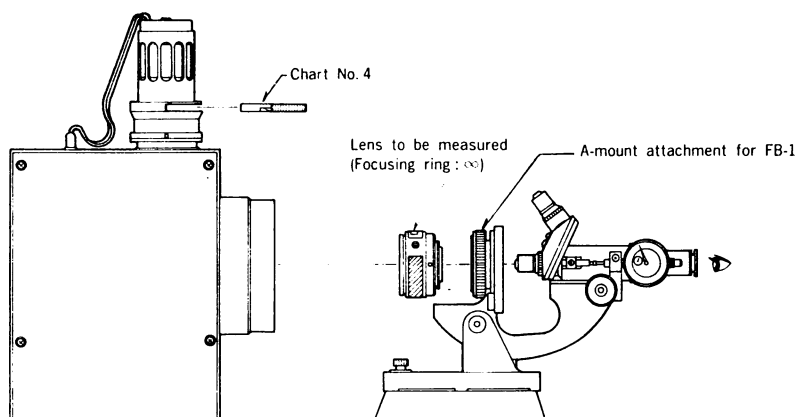
3. Check aperture diameter (referring to General checking/adjusting procedure on p. 9).
4. Check General functioning (referring to General checking/adjusting procedure on p. 14).

■ Flange back adjusting

- Measuring instruments : Collimator (Model RC-1000 I*, II*, III) ※Discontinued model
: Flange back checking tester (FB-1)
: A-mount attachment for FB-1
: Flange back gauge (43.50mm)

■ Preparation

- Set lens and measuring instruments as Fig. below.



■ Adjusting procedure

(For preparation of measuring instruments and measurement of flange back, see "Flange back (f'F) measuring, adjusting procedure" of General checking/adjusting procedure on p.1.)

1. Check if flange back value meets allowable range ($44.56^{+0.03}_0$).

If out of allowable range, calculate correct value.

(Example) Measured flange back value : 44.50

Allowable range : 44.56~44.59

$44.56 - 44.50 = 0.06$ } Decrease back washer thickness (0.06~0.09mm)

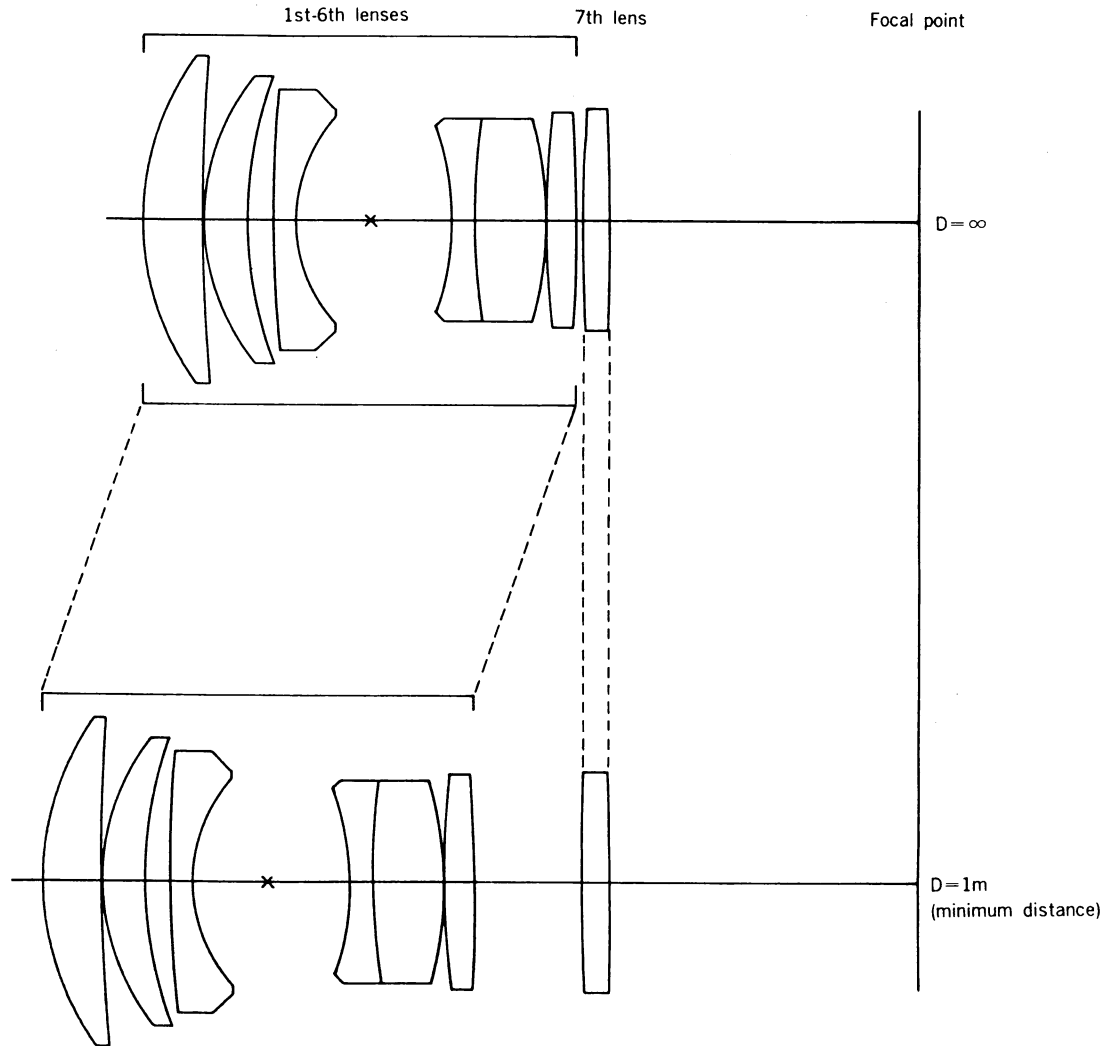
$44.59 - 44.50 = 0.09$ } to meet allowable range.

- If measured flange back value is shorter than allowable range...decrease back washer thickness
- If measured flange back value is longer than allowable range...increase back washer thickness

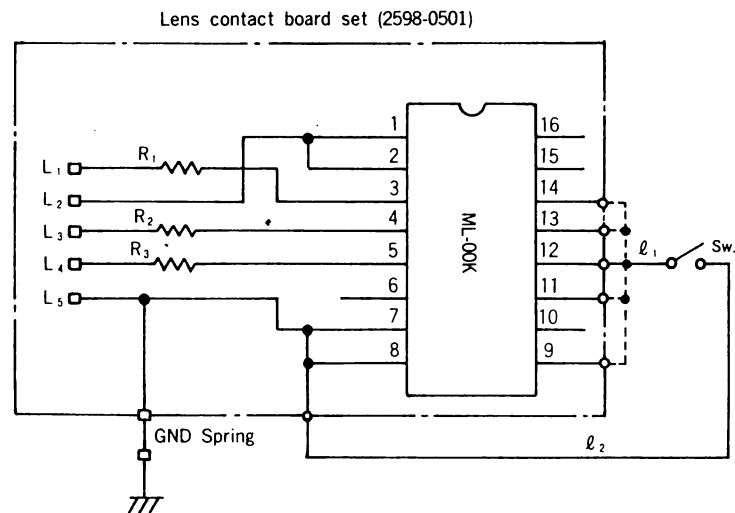
2. Remove back washer from lens unit.
3. Measure thickness of original back washer. Then select proper total thickness of back washer.
(Classified back washers are given on p.4)
4. After assembling, make sure that flange back meets allowable range.
(If out of allowable range, repeat above procedures 1~3.)

■ Description of focusing

■ Floating system (1st-6th lenses move together, 7th lens is fixed.)



■ Schematic circuit diagram, Printed wiring diagram



L_{1-5} : Lens signal contacts Sw. : Distance switch ($\infty \leftrightarrow 2.5\text{m}$: ON,

R_{1-3} : Printed resistors $2.5\text{m} \leftrightarrow$ Minimum distance : OFF)

l_1 : Lead wire (black)

Can be soldered to one (or some) of pins No. 9, 11, 12, 13, 14.

l_2 : Lead wire (black)

